

IN THE CLAIMS

The following is a complete listing of claims with a status identifier in parenthesis.

LISTING OF CLAIMS

1. (PREVIOUSLY PRESENTED) A method for use in a node of an optical network, the method comprising the steps of:

receiving a connection request; and

assigning a link resource selected from link resources that have been released for connecting to a neighboring node by using at least one predefined sequence, that comprises ports and corresponding wavelengths within a node, to avoid contention resulting from the request,

wherein the at least one predefined sequence resulted from a negotiation with the neighboring node prior to receipt of the request.

2. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the assigning step includes accessing a table for selecting the link resource for assignment to the connection request, the table comprising link resources arranged in accordance with the at least one predefined sequence, wherein the link resources comprise ports of the node associated with the link.

3. (ORIGINAL) The method of claim 2, wherein the network IS an optical transport network.

4. (ORIGINAL) The method of claim 3, wherein the link resources are selected from the group consisting of wavelengths, SONET-based tributaries, SDH-based tributaries, and PDH-based tributaries.

5. (PREVIOUSLY PRESENTED) The method of claim 1, wherein the negotiation with the neighboring node prior to receipt of the request results in at least two predefined sequences, a first sequence and a second sequence; and

further wherein the assigning step includes determining if the connection request is a bi-directional request or a unidirectional request;

if a bi-directional request, selecting a first table, the first table comprising link resources arranged in accordance with the first sequence;

if a unidirectional request selecting a second table, the second table comprising link resources arranged in accordance with the second sequence; and

selecting the link resource from the selected table for assignment to the connection request and wherein the link resources comprise wavelengths of the node associated with the link.

6. (PREVIOUSLY PRESENTED) A method for use in a node of an optical network, the method comprising the steps of:

storing a table, wherein the table comprises resources associated with a link with an adjacent node; and

upon receipt of a connection request, selecting a link resource that has been released from the table for use in connecting to the adjacent node, wherein the selection is performed in

accordance with a predefined selection sequence that comprises ports and corresponding wavelengths within a node to avoid contention associated with the request, and

wherein the predefined selection was previously negotiated with the adjacent node prior to receipt of the request.

7. (PREVIOUSLY PRESENTED) The method of claim 6, wherein the link resource comprises at least wavelengths for use on the link.

8. (PREVIOUSLY PRESENTED) Apparatus for use in an optical network, the apparatus comprising:

a communications interface for use in negotiating a selection sequence, comprising ports and corresponding wavelengths within a node, with an adjacent node prior to receipt of a connection request; and

a processor, responsive to a connection request, for selecting a resource from link resources that have been released in accordance with the selection sequence for connecting to the adjacent node over a link to avoid contention associated with the request.

9. (PREVIOUSLY PRESENTED) The apparatus of claim 8, wherein the processor accesses a table for selecting the resource for assignment to the connection request, the table comprising the resources associated with the link arranged in accordance with the selection sequence, and

wherein the resources associated with the link comprise ports associated with the link.

10. (ORIGINAL) The apparatus of claim 9, wherein the network is an optical transport network.

11. (ORIGINAL) The apparatus of claim 10, wherein the resources are selected from the group consisting of wavelengths, SONET-based tributaries, SDH-based tributaries, and PDH-based tributaries.

12. (PREVIOUSLY PRESENTED) A node of an optical network, comprising:
a memory means for storing a table, wherein the table comprises resources associated with a link with an adjacent node; and
a processing means for use in processing a connection request such that upon receipt of the connection request, the processing means selects a link resource from the table that has been released for use in connecting to the adjacent node, wherein the selection is performed in accordance with a predefined selection sequence comprising ports and corresponding wavelengths with a node to avoid contention associated with the request, and wherein the predefined selection sequence was previously negotiated with the adjacent node prior to receipt of the request.

13. (ORIGINAL) The node of claim 12, wherein the node is an optical transport network.

14. (ORIGINAL) The node of claim 13, wherein the link resource comprises at least wavelengths for use on the link.

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